Draft Catalogue Template
For Transmission Obligations

Overview:

This draft of a Catalogue Template for Obligations briefly describes the purpose of Cataloguing, and the role of the Catalogue in RTO West operations. An initial draft Catalogue Template is provided which shows the types of information that should be included in a PTO's Catalogue of transmission obligations, and describes two options for organizing that data. When completed, the Catalogue Template will be used by PTOs to assure that all pre-existing transmission rights are translated into standardized terms that will be meaningful to RTO West. A list of outstanding issues to be resolved is provided at the end of this document.

Purpose of the RTO West Catalogue:

The primary purpose of the Catalogue is to establish a tabulation that accurately describes the pre-existing transmission agreements and obligations of the Participating Transmission Owners (PTOs). To the extent possible without compromising the primary purpose, the catalogue should also collect information in a way that facilitates conversion of existing rights to standard RTO West transmission service. To serve these purposes, the Catalogue must, as much as possible, categorize operational characteristics of obligations in a uniform manner, using standardized components. At the same time, the Catalogue must include the unique operational characteristics of each pre-existing agreement and obligation. The rights identified in this Catalogue are known as "Catalogued Transmission Rights", or CTRs.

The process of cataloguing the pre-existing contracts will accomplish important inter-related purposes:

- Identifying the credits against RTO West congestion charges received by a Participating Transmission Owner (PTO) taking Non-Converted Service and with respect to pre-existing contracts that are not converted ;
- Identifying the credits against RTO West congestion charges received by a transmission customer holding preexisting rights (contract or native load) and the corresponding rights of a customer converting to RTO Service but retaining CTRs
- Providing a consistent basis for defining the pre-existing rights of transmission customers who choose to convert to direct RTO West service and choose to convert their pre-existing rights to Financial Transmission Options (FTOs); and
- Providing a basis for RTO West to estimate the transmission capacity that it can make available in FTO auctions.

PTOs will use the same Catalogue Template, which will enable RTO West to see all pre-existing transmission obligations in standardized component form. Having standardize components will: 1) allow RTO West to better handle scheduling, 2) facilitate its assessment of the adequacy of each PTO's Congestion Management Assets to the PTO's catalogue of transmission obligations, 3) allow RTO West to assess the range of potential aggregate transmission loading in order to estimate the availability of FTOs, and 4) facilitate the conversion of existing rights into standard FTOs. To the extent possible, this process will result in the cataloguing of existing rights as combinations of standard, unconditional injection/withdrawal rights (which could then easily be converted into FTOs) and non-standard, residual CTRs. The collection of CTRs defined for a contract would mimic the existing right as closely as possible.

RTO West will use the Catalogue's tabulation of CTRs on an ongoing basis for evaluation of the risk associated with the release of Financial Transmission Options for forward sale in auctions and for acquiring congestion management resources. The CTRs, described in the Catalogue, will be used by PTOs (and converting RTO West transmission customers who have opted for CTRs) to offset congestion cost charges in RTO West settlements.

A Sample Catalogue Template:

The following table identifies the type of data which must be captured in the Catalogue to define pre-existing agreements and obligations. This template assumes the data is organized in a single file with multiple columns, i.e., a flat file format. The terms used in Template #1 are described below:

Template #1
A Sample Template in Flat File Format

Category	PTO	Cust	PTO Contract ID	Eff. Date	End Date	Type of Service	Scheduling Exceptions	Total Inject	Total Withdraw	Location I1	I1	Location W1	W1
Units	Name	Name	Number	Date	Date	(Fixed, Load, Other)	Text	MWs	MWs	Busbar ID	MWs	Busbar ID	MWs

Definition of terms:

PTO – the name of the Participating Transmission Owner that is providing transmission service.
Cust – the name of the customer that is receiving transmission service
PTO Contract ID – the PTO's contract number or identifier
Eff. Date – first day of the transmission service
End Date – last day of the transmission service
Type of Service – the type of transmission service. Can be either fixed (e.g. PTP), load based (e.g. NT), or other (e.g. PNCA)
Scheduling Exceptions – special scheduling provision specified in the contract or tariff that are different from RTO West scheduling practices
Total Inject – the total amount of power that can be injected into the RTO West grid
Total Withdraw – the total amount of power that can be withdrawn from the RTO West grid
Location I1, … – Specific bus bar locations where power is injected (there may be any number of locations, e.g. Location I9 would be the location of the 9th point of injection)
Location W1, … – Specific bus bar locations where power is withdrawn (there may be any number of locations, e.g. Location W8 would be the location of the 8th point of withdrawal)
I1, I2, I3, … – Specific injection limits for any number of locations
W1, W2, W3, … – Specific withdrawal limits for any number of locations

Relational Database Approach:

Given the tremendous flexibility in the number of injections or withdrawals, the change in limits over time, etc., RTO West will most likely need to organize the catalogued rights using a relational database format, as shown in Template #2 below. The information and terms used are the same as those shown in Template #1 above, only the structure of the database has changed. The relational data base format has the advantage of being able to condense the complexity of the flat file format into a handful of data tables. Data in these tables are linked with ID fields that are unique in one table and may be repeated in another table. This allows a contract (a single entry) to reference multiple CTR sets representing each months demand limits for example. Each unique CTR set in turn can reference any number of injections or withdrawals. The database will also allow integration of a translation table that will convert contract specified PODs & PORs to nodes on the RTO West grid as Points of Injection and Withdrawal. As facilities are added or removed, RTO West will only need to update a single database.

Template #2
A Sample Template in Relational Database Format

Table 1 – Contracts	*Category*	PTO	Cust	PTO Contract ID	Eff. Date	End Date	Type of Service	Scheduling Exceptions	CTR ID#
	Units	Name	Name	Number	Date	Date	(Fixed, Load, Other)	Text	ID

Table 2 – CTR Sets	*Category*	CTR ID#	Eff. Date	End Date	Total Injection	Total Withdrawals	Withdrawals ID #	Injections ID #
	Units	ID	Date	Date	MWs	MWs	I/W ID	I/W ID

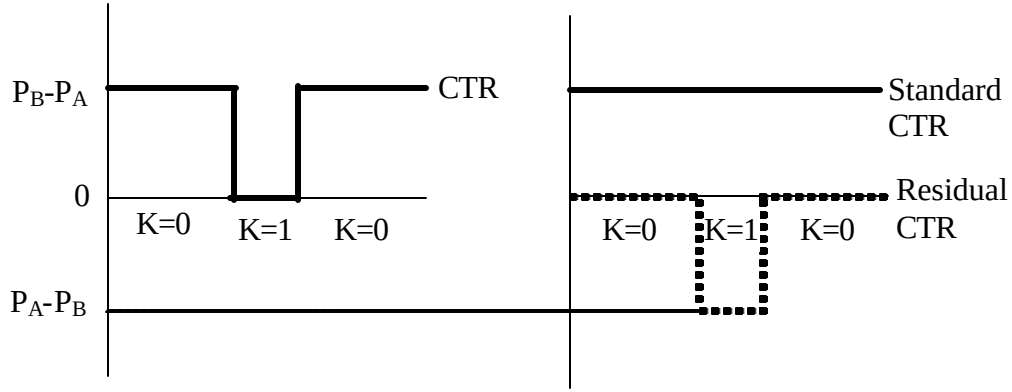
Table 3 – Standard I/W Rights	I/W ID#	Injection Location	Withdrawal Location	Quantity
	ID	Busbar ID	Busbar ID	MWs

Table 4 – Non-standard Financial Rights	*Category*	I/W ID#	Injection Location	Withdrawal Location	Max Quantity	Min Quantity	Condition ID #
	Units	ID	Busbar ID	Busbar ID	MWs	MWs	ID

Table 5 – Conditions	Condition ID #	Condition Description
	ID	Text

Example of Cataloguing Existing Right as Standard and Non-standard Pieces

Some existing transmission contracts grant rights that are *conditional*, i.e., their value can change depending on grid conditions. For example, a contract may permit the PTO to curtail the right under certain circumstances, such as a line being out of service. Conditional rights can be broken into standard congestion hedges and non-standard pieces through the use of conditional *call options*. A call option entitles its holder to receive a payment under certain circumstances spelled out in the option contract. A conditional existing right from A to B can be catalogued as a combination of a standard, unconditional A-B congestion hedge, equal to the price at B less the price at A during all hours, and a call option enabling RTO West to receive a payment from the CTR-holder equal to the price at A less the price at B under the same circumstances that devalue the existing right. This process is illustrated graphically in the picture below.



The existing right, portrayed in the left-hand chart, has a value of P_B-P_A during most hours, and a value of zero when K=1, i.e., during hours when the right is curtailed in accordance with the terms of the contract. In the right-hand chart, the right has been replaced with a Standard CTR, which has a value of P_B-P_A during *all* hours, and a residual right held by RTO West to receive a payment from the existing rights-holder equal to P_A-P_B. This right can be exercised only under the same set of conditions that allowed the original right to be curtailed. If the CTR-holder wished to convert to FTOs, the Standard CTR would convert directly, while the Residual CTR would not be convertible and would thus remain as a legacy obligation.

Outstanding Design Issues:

- Are there physical aspects of existing rights that cannot adequately be captured by credits against RTO West charges?
- Losses – some contracts have specific treatment of losses that may be different than the method used by RTO West.
- How to reflect additional limits – Some contracts have limits that are tied to other indicators (e.g. you may inject 100 MWs at A or B and withdraw 100 MWs at C or D but your A to B limit is defined by how much is scheduled at B). Some have indicated some form of "logic table" be used so that any schedule that passes the logic table test would be acceptable.
- PTO's Curtailment rights – some contracts allow the PTO to cut schedules under specific situations. How should those limitations be reflected in the catalog?
- Redispatch obligations (PTO and customer)
- RAS obligations
- PTO/customer rights to modify/terminate/extend contract
- Reassignment rights
- Secondary service/Non-Firm Points, alternate points of injections and withdrawals
- Ancillary and Control Area Service provisions
- Power Factor provisions
- General issue: Are there items that would need to be in the catalogue for a non-PTO customer, but would be covered by the TOA for a PTO-to-PTO contract or affiliate to PTO contract?
- Internal merchant rights – how to address pre-888 unwritten or undocumented rights
- Simultaneous transactions – Power exchanges that use the underlying transmission system.
- Right to withdraw may not be coupled to a particular service, i.e. "Use limits"
- Transmission rights may be tied to a capacity share of OTC on a particular path. We need a way to reference physical capacity to scheduling capacity.
- Relationship of the transmission provisions of grandfathered bundled contracts to the power provisions in the contract
- Obligations of the owner/provider of the system between the POR/PODs and the IWPs if they are not the same, and obligations of generators connected to that part of the system.
- Related Transmission Link Paths and TTC in contract (if any) from Contract Path world and definitions (to assess adequacy of assets).